U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

Form Bi-689

FIELD DIARY

Mr. E. A. Goldman

(Official title.)

Period. May 28 to August 7

1937

NOTICE

This book is Government property. The finder is requested to mail it to the BUREAU OF BIOLOGICAL SURVEY, DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C., or deliver it to the official whose name appears above. A detachable addressed frank will be found on the last page; by tying this on the cover the book may be mailed without postage or wrapping if fastened shut.

GOVERNMENT PRINTING OFFICE 8—4925

May 28, 1937.
Left Washington, D.C. by rail en route to Tucson, Ariz., 11.30 P.M.
Father had left by auto the preceding Sunday to join me at the named place.

May 29
Arrived Chicago, Ill. 4.55 P.M.
Trees approaching full leaf. Weather very pleasant.
Left Chicago 9.15 P.M.

May 30,
Approaching Kansas City in morning.
Heavy rains had fallen and most of Kansas City farms and prairies looked

May 30 con.

bright and green, but weather had evidently been pretty dry. Grain heading very short. Grass cord in most places only a few inches high.

May 31

Running through New Mexico and reached El Paso in morning. Country pretty dry all the way to Deming where I arrived 5.35 P.M.

Yucca. In New Mexico it was noted that in places where it had evidently rained the Sword-leaved Agave was in full flower while in places where it had

May 31 cont.
not rained the plants had not bloomed.
Sutter met me on the station platform. He had driven from Washington in about 5 1/2 days, arriving the morning of May 29.

June 1st
In Tucson. Conferred with Dr. Chas. T. Parkins, Prof. A. A. Nichol and Indian Supervisor Fred Wynn. Lunch with them at Pioneer Hotel. Baggage had been wrongly routed and had not arrived.

June 2nd.
In Tucson.
Baggage arrived in morning, also supplies by mail and

June 2

Zophorus gambeli. A number seen & heard calling at Exp. Farm. A covey of about 10 young seen.

Melopelia l. asiatica. Several seen & heard. Evidently breeding in trees on Exp. Farm.

June 2 PM con.

In afternoon we drove out to various points. Set gopher traps at Agric. Exp Farms near Rillito Creek near town.

Weather becoming quite hot, but not so very oppressive. Left 3 PM, returned 7 P.M.

June 3

In Tucson

Skies 19149 Det. 6 PM
@ 7:30 am

Thomomys. Took a dozen specimens at Univ. Agric. Farm on Rillito Creek about 3 mi. N.E. of town. These the gophers are troublesome in breaking irrigation ditches especially. They live in the valley bottom, especially favoring moist areas where there is some grass growing.

June 3 con.

In afternoon set traps in pass between Santa Catalina and Rincon Mts.

June 4.—

Drove to mountains bet. Sta. Catalinas & Rincon Mts + returns also to San Pedro Riv.

Mileage 19216

Off at 7:30 A.M.

Dipodomys spectabs. In Pass bet. Sta. Catalinas and Rincon Mts. - mound at base of clump of Mimosa Biuncifera.

Thomomys. Live in rather light-colored granitic soil in pass between the two mountain groups at about 4500 ft. Here near boundary between Upper & Lower Sonoran zones.

June 4 con.

Veg. in pass at about 4500 ft. Bet. mts ranges.

Juncus mariq.

~~Dan~~

Beargrass (Yolina)

Mezquite.

Mimosa Dumosa

Dipod. pulchella in mt. meadow in gravelly granite soil at about 4500 ft.

Ret. 3 P.M.

June 5

Tucson to pass bet. Santa Catalina Mts and Rincon Mts.

Mileage 19303

Off 7 A.M.

Ret. about 11 A.M.

June 6 (Sun)

Tucson. Short trip out to Black Mt. Mileage 19367

Black Mt. - Mt. rises about 800 ft. above plain about 10 mi. S. of Tucson. Old, probably lava, over a calcareous formation

Left 8 A.M. Ret. 1 P.M.

June 7 Mon.

Mileage 19402

Out to Black Mt. to set out traps 2 P.M. Returned to Tucson about 7 P.M.

Ajo mts. Fuller and Schild
up and set traps on upper
north slope where we found
a few juniper and a Phainopepla
upon ridge. Upper Sonoran
Zone elements.

Cnemidophorus tesselatus. One
caught at a burrow with
several entrances in soft soil -
a small bare spot among
rocks on the mountain slope.
Entrances loosely plugged,
but a quart or more
dirt pushed out in front of
them.

June 8th

Tucson to Ajo mts. & return

Mileage 19423

left Tucson for Ajo mts.
6 A.M., returned 9 P.M.

Spent day preparing specimens
and arranging to leave tomorrow
for a field trip Ajo region.

June 9

left Tucson 8.10 A.M.

Mileage 19455

accompanied by A. A. Nichol.

Traverse altitudes, replaced by
T. Amadora in 3rd Angora.

Camped for night in mouth
of canyon on west slope of
Ajo mts. about 2 P.M.

Ajo mts. of brownish rock, probably
volcanic but eroded in a series of
sharp peaks and precipitous cliffs,
no official evidence of dark rocks seen

June 10

Left Ajo Mts 4.30 PM.
Mileage 19592

Camped for night at east end of Puerto Blanco Mts. about 5:30 PM and set out traps in dark, eroded volcanic formation.

June 11

Left Puerto Blanco Mts, 1.15 PM.
Mileage 19609

Arrived Bates Well via Ajo about 5 P.M.

Set out some gopher traps Puerto Blanco Mts. are very dark lava formation appearing to have been pushed up and to have cooled in irregular masses - Part (over)

presumably very old are there has been considerable erosion and a breaking down of the structure leaving rounded marble-like pebbles along the basal slopes. Rather barren of vegetation but some cactus including Cereus thurberi occur.

June 12

Returned Bates Well

Trapped for pocket gophers along wash and set traps for rats and mice on volcanic hill. Warm.

June 13 (Sun.)

Left Bates 2 P.M.

Miles 19662 - 19662

Arr. Tucson 6.30 P.M.

Took very few gophers.

Bates Well. Located in Growler Pass between the Growler and Bates Mts. The northern end of the Bates Mts is of very dark volcanic formation and we trapped on the slopes. Woodrats and Perognathus eremicus from there do not appear very dark in color.

~~9951 - 14 to Gonk~~

June. 14 (Mon)
At Tucson. Off 3 PM Ret 7 PM
Got mail – set traps about
Black Mt. in morning
Mileage starting Off. 19817

June 15 (Tue)
Rather poor catch of rats
and mice owing to ravages
of ants.
Mileage 19845
Off 6 a.m. Ret, 8,15 PM

June 16 (Wed)
Mileage 19923 -
Off 5.45 a.m. to Black Tank
Return 8.30 a.m.
Off 1.30 PM to Sta Rita mts.
Mileage 19955 - 14 mi. N. of Gonk,
Returned Tucson 6 PM.

Sta Rita Mts, June 18

Selophaga picta. A fine male among lower oaks in Madera Canyon. Heard singing several times, noted peculiar, flycatcher like motions as bird searched along tree limbs and through branches and several times apparently took insects in flight, Tail spread.

Columba fasciata. About thirty seen in small loose flocks and singly among lower oaks. Probably feeding on young acorns.

June 17 (Thurs)

Tucson to Phoenix & return

Left Tucson 8 AM returned 8 PM.

June 18 (Fri)

Mileage 20082

Left Tucson 8.30 A.M.

Ritch 6.30 P.M.

Drove out to Sta. Rita Mts

Set out gopher traps in mouth of Madera Canyon and at Old Parker Ranch.

June 19 (Sat.) Tucson

Mileage 20174

Off to Sta. Rita Mts. 7.45 AM.

Ret. 6 PM

Visited Madera Canyon, Sta. Rita Mts. and swung around to Old Parker Ranch where gophers traps were set.

Thomomys at Old Parker Ranch inhabit a decomposed granite flats or deltas in lower edge of oaks. Here Celtis spinosa Linearia and mezquite are blended with oaks. Gophers favor local situations where Argemone is patches and probably feed on the roots as has been noted elsewhere.

Thomomys at 666 camp gophers working among lowest plants in garden.

June 20 (Sun) Tucson.
Mileage 20267
Off to Old Parker Ranch, Sta Rita Mts. 5:30 A.M. returned 9 A.M.
Brought in Thomas traps which contained 6 specimens.

June 21 (Mon.) Tucson
Mileage 20364
Off 4 P.M. to Umbrella Farm.
Ret. 7 P.M.

June 22 (Tue) Tucson
Mileage ~~20389~~ 20389
Off 6 A.M. to Umbrella Farm
Ret. 10 A.M.

June 23 (Wed)

Mileage 20476

Trip to Nuevo Laredo.

Took up gopher traps

Off 6 a.m. arr. 10 a.m.

June 24 (Thurs)

Mileage 20508

Left Tucson 3 P.M.

Arrived Nogales 5 P.M.

Stopped Bauman Hotel

Rain - Slight shower en route &
weather unsettled.

June 25 (Fri)

Mileage 20583

Rosales to Peña Blanca Spgs.

Off 9 a.m.

Arrived at Spg. about 10 a.m.

Peña Blanca Spg. Located near base of cliffs in upper Sonoran zone, but near border of Lower Sonoran. Quercus emoryi most abundant, but other upper Sonoran species present, also Lower Sonoran.

Juglans
Sycamore
Celtis pallida
Fraxinus (among oaks)
Nolina
Arctostaphylos
Mimosa biuncifera

June 26 (Sat)

Mileage 20617

Off from Pena Blanca 3 PM

Drive down to Sta Cruz River

out and gather leaves and drive

back to Pena Blanca 5 P.M.

Selaginella fricta Pena Blanca Top

accepta Canyon "

Melofolia (Coffee oak woods) "

Sthenaltyra "

Prunus (wild cherry) "

Platanus "

Juglans "

Lecidellas sporus.

Palmer 6 PM.

June 27 (Mon)
Mileage 20643
Left Peña Blanca 7.30 a.m.
Drove to trap line 5 miles N. of Nogales.
Thomomys. Three specimens in traps set along Nogales Creek, 5 miles north of town.
Drove up into Patagonia Mts.
Sucrces hyperbrea
Jumping mice
Pumpers
Returned to Nogales in evening

June 28 (Mon.)

Lat. 50° 20701

Left Nogales 9 AM.

Arrived to Nogales 7.30 PM

Insects Lepidoptera

" Diptera

" Orthoptera

Coleoptera tribes

Melopelia [illegible] cen.

Zenaida leucoptera [illegible]

June 29 Tue

Left Nog. 7.30 A.M.

Mileage 20741 over

Leucosarcia, Finches, Warblers, Sparrows

[illegible] 2. Empidonax, Apparently

Spent day on Patagonia Mts. and

returned via evening to Nogales,

arriving 7.20 PM.

Wed.
June 30 Tucson
Remained at Tucson,
Conformance & report.

July 1 (Thurs).
Mileage 20882
Left Tucson 2 P.M.
Arrived 5.30 P.M. Willcox

July 2 (Fri) Willcox
Mileage 20979
Left Willcox 7.20 a.m.
Arrived 6.30 P.M.

July 3.
Mileage 21030
Left Wellton 7,30 A.M.
Farms (corn)
Tyr. verb
Leo coc.
Salt bush Stg. Valley - Tamarisk
Bottom alkaline in part.
Prosopis
Atriplex
Grass — Wild oats.
Left Willcox for Benson
4.15 P.M., continued from Benson
to Bisbee where we arrived
6,45 P.M.
Lopk. gambeli, Noted two
crossing road near Benson.
Yucca near Benson
Road ascended gradually
from Benson and a short
distance north of Bisbee

July 3 con.
entered oak belt.
Weather. Hot in morning. Both heavy showers near Bisbee in evening.

July 4 (Sun)
Mileage 21150
Left Bisbee 10 A.M.—
drove to Tombstone and about five miles north turned west and northwest and passed through a high valley country well parked but in part dusty & thistly on [illegible] vegetation.
Stopped at Cabeza 3 miles [illegible]
[illegible] continued to [illegible] and Casa Grande.
Arrived 7 PM.

July 5 (Mon)
In Tucson

July 6 (Tue)
Mileage 21307
At Tucson - Visited friends in country near Santa Rita Mts.
Off 8.30 A.M. Ret. 4 P.M.

July 7 (Wed)
Mileage 21381
Left Tucson 1.15 P.M.
Rain.
Zone. Some upper Sonoran
Zone elements - juniper,
[illegible] on divide
Cloud by Mowry mesa
& [illegible] Tuf Tucson
Sonoran preponderant.
Rattler killed. Mesa near
Tuc was thorny each of
Tucson.

July 7 con

Yucca - 2 sp. narrow leaved & Yucca baccata type a little west of Benson. Benson, ar Benson 2,12 P.M.

Leoron sp. - 2 sp. near Benson.

Dragon mts. Dutto Rogers & probably near southern end. Chiefly evergreen Upper Sonoran on top.

Thomomys. In pass at north end Dragon mts., Dutto, Nolina and Mesquite and general conditions much as at Old Parker Ranch, Drop gradual and rather slight to Sulphur Springs Valley.

July 7 con

Veg. in Sulphur Springs Valley:

Mesquite (abundant)
Yucca baccata (rare),
Grass in patches.
Willcox arr. 3.20 P.M.

Dos Cabezas Mts. Brush & Upper Son. on top - moderately steep.

ar. Safford 5 P.M.

July 8

Meliosa 2 1 5 2 5
off 8.30 A.M. ar. 6. P.M.
at Safford 8 sp.

Thomomys. Took a series in and about cultivated fields on Gila Valley flats. Adult males seem to have large prostatic sacs & small testes.

July 9
Whitney 21552
off 8:30 a.m.; rt. 6 PM
At Safford area
Thornburg ~~completed~~

July 10,
Whitney 21566
Left Safford, a.m. 10 a.m.
Thorn - Mezquite small
leaved,
Low Clay abundant
Yucca, Ant over spadeful
Sloping plain with Some
Salsola Kalis to Stein and
south to Portal then up to Rustler Park

Thornburg. On mezquite
plain about 5 miles south of
Bowie.
Peloncillo Mts. A ~~chain~~
of rugged peaks not very
high and with low passes
between. Road through Stein
H.M. crosses southern end.
Encelia } Portal, Thornburg
Acacia } Stein Pass.

Peloncillo Mts. Hoffman Sta.
on top
Sykes. At Portal Ranger Sta. met
young Sykes (son of Godfrey), who
gave us key to cabin at Rustler
Park.
Rustler Park. Road built in to
this point at 8500 ft. alt.
Columbia fasciata. Rustlers Park.
am. Rustler Park 4 PM.

July 11 (Sun)
Remained at Rucker Park,
Cochise Co. Ariz.
Thermometer, 90° at 8 AM
Worked traps in
park. Bait used on the 10th
leaves of the Pine, Males with
swollen testes. Weighed 2
toads. Dan Peak accompanied
by Jeffers. Set out traps on
summit and caught a few
P. Thermometer stood at 90°
in the afternoon. Toads have two
forms of maximum normality
but one trial clearly one only
on one side.
Hermit Thrush heard
singing at Rucker Park,
Cochise County, Ariz.

singing at Rucker Park,
Juneo. Red-backed sand
piper (Ereunetes occidentalis)
Pisanga bulowiana. One
alighted near the window
of the cabin at Rucker.

July 12
Mileage 21698
Left Dan Rucker 3:15 PM
Arr. Portal 7 PM. after
trip to ciénega in San Simon.
Ciénega largely filled with a
large sedge.

July 13 Dec
Mt Grd 2 1794
Left Tex ~~Hawks~~ &
Started to Hawks Ranch
9 a.m. Arr. Douglas 7 P.M.
Rodeo 10.30
Ephedra - dogbut or plain
Yucca. Crassa (leaf)
Mezquite
Grading plain mainly
Prod. Spinosa,
Echinocabra station 1194
Over grassy divide
Dipl. spinosa, Leon-
opicum in grassy plain
Zone - Lower San Pedro
Agave at Rodeo Cr.
Harrows at intervals along
road.

Volcanic area. near
Chiricahua divide
Fouquieria } near Douglas
Cordilea

Douglas 12 M.

In afternoon drove out San Geronimo past San Bernardino close to Mexican boundary to Palomillo Mts selling traps en route and returned to Douglas 7 P.M.

John Hands. Visited near Portal and secured considerable information. Types sent with us and we took him goodbye at Hands place. Hands believes there are two kinds of Whitetail deer but admits that they mix - they are believed to be a large and very overall type the latter with small horns.

July 13 con,

Lenenza in San Simon, Hank says this would be a very fine area for a bird refuge as several kinds of ducks nest there. Comprised of about 2000 acres of marsh which is now filling in with brush and cutting out of lower end.

July 14

Mileage 21915

Left Douglas 6:15 a.m.

Packing Mules and make up specimens on Peloncillo Mts.

Cabin site - Peloncillo Mts

Plateaus - Junipers mono.

Douglas

Dairy

Gone Peloncillo Mts, Telephone

Dinosaur

Drive across lower end of Animas Valley and upper Sulphur Springs Valley

Camp in Peloncillo Mts. 8:15 P.M.

July 15.
Left Palagonia at 8:15 A.M.
Mileage 22079
Drove ~~down~~ East to Santa Cruz River, stopped gobbles and returned over Palagonia Pass and Area Nogales, reached Tucson, Ar. 4:45 PM

In Tucson July 16
Mail & packing specimens

July 17
Mileage 22225
Left 11:10 A.M from Tucson
Arr. Superior 7:30 PM.
Route to Florence over valley, Plain north of Sta. Catalinas.
Opuntia fulgida, Jojoba, Rio. ~~Canyon~~ Arkansas, Cholla on road to Florence.
Opuntia versicolor — cholla similar plus dark color, range with fulgida
Florence 12:45 PM.
Reserve Junction Left 1:45
Olneya tesota "Ironwood"
Zone Superior
Coffee Cream — Near Superior

July 17 cont.

Zone often in Pinal Mts. south of Miami.
Pleasant
Juniper
Globe 3,15
Zone. Tree yellow pines on mts. Above Globe & Salt River
Nolina Mearnsiana first

July 18 (Sun.)
Mileage 22495 - 88. 8411.
Trip to McFadden Ranch where "corn" plants were investigated.
Tamarisk, Wolfberry, Desert cacao, Screw bean, Salvia, Fremontia, Arizona ash, Arizona poplar and cottonwood grow along stream in Transition Zone.

Merriam Elk: At Beckers Store in Springerville.
Antlers about like Rocky Mt. in general size but more branched & flattened near ends. - Points 3 near ends - one set with four points and one with five.
Main beam fairly straight to near end.

Jack-rabbit Deer, Mrs. M. Pontain at Luna has horns of little deer, also called "hook deer".
Bill Jones, Denver, N.M. knows about these deer.

W.B.
Grizzly: according to Manuel last one killed by Mexican 27 Sept. 1928 on Big Bonito Crk. south of Baldy. This is now in Mus. Nat. Hist.

July 18 con.
Returned from McKay Ranch to Springerville and drove to Musgraves Cabin. Arr. 6 P.M.

July 19-20. Mon & Tues
At Musgraves. on W. Fork of Black River.

West Fork of Black Riv. Worthy windows along river.

July 21 Wed
Mileage 22535
Left Black River 3 P.M.
Arr. Holbrook 7:30 P.M.

~~Hot~~

Big Lake. Visited briefly en route. A dam has been placed at lower end of ~~Lake~~. Time did not permit us to make a satisfactory study of conditions.

July 22 Thurs.
Mileage 26669
Left 8 A.M. from Holbrook.
Arr. Flagstaff, Ariz. 11 A.M.
Drove out to Fitch Springs and Met Lo-M Huey in afternoon. Returned Flag. 6 P.M.

July 23 Fri
Mileage 22807
Left Flag. 2.20 P.M.
Cedar Ridge – Sm. pole tie
cabins
Survey area Hawk, mouth of
trail Canyon
Took Bearings, 14 mi S,
Arrived Jacobs Lake
4 PM

July 24 Sat
Mileage 22975
Left Jacobs Lake 7.45 A.M.
Arrived St. George 1 P.M.
Left St. George 3 P.M.
Arrived on juniper ridge near mt.
Sec. number 5 PM – set out some
traps.
Climbed from Hwy – will line
up into pinyon belt on ridge.

July 25 - 26.
In camp 4 mis. N. of Wolf Hole.

Dipol. mexicana - N. of Wolf Hole. - associated with Larrea tenuata, Yucca baccata,

July 27 (4510)
Mileage 23207
Left Camp N. of Wolf Hole 8.10 A.M.
Ivy camp Mallelon
arr. Mt. Trumbull - Bundyville 11.30 A.M.
Leosoma
Arlenia Ind.
Amphi Fil.
Arrived lower end of Tanoweap, 6 P.M - camp on rim of Grand Canyon.
Lava Ind - found in part of lava and in part of cinders.
Lava cattle Hills and general outcrops of this formation.
Trumbull range continues to lower end of Tanoweap Valley.

July 28-29

In camp on rim of Grand Canyon at lower end of Toroweap Valley.

Hawk - a pair located along rim of Grand Canyon, dark and quarrelsome - color - gray & dark on back with light - tipped long tail, wings pointed, set well forward and distinctly inclined downward, under parts - apparently chestnut, barred black - very swift in flight - quite domestic - rabbit - like ears, cere apparently dark, 36 another hawk not identified.

July 30

Mileage 23286

Left Toroweap 2.45 PM

Arrived Nixon Spg. 5.30 P.M.

Found Huey and party there.

Weather clear and comparatively

July 31 on det.

Mileage 23316 - 23588

Left Nixon Spgs 9 A.M.

Route back via Wolf Hole

to St. George, Utah.

Arr. 1.15 P.M.

Aug 1 Sun
In St. Hilaire Utah
Short trip with Nick to sand dunes.

Aug 2 Mon
Left St. Geo. for Canyon start 10.50 a.m.
Mileage 23396
Reading at Wolf Hole 23426.5
Wolf Hole 12.10 P.M.
Left Wolf Canyon
Engineer,
Colorado
Turn back 23488
3.35. P.M.

Wolf Hole again 5.30 P.M.
Mileage at Wolf Hole 23469
Arr. at camp 17 mi. S. of Wolf Hole. 6.30 P.M.
Nice camp on grassy slope with junipers on low ridges around.

Aug. 3 Tue
Left camp 17 mi. S. of Wolf Hole 8 a.m.
Mileage 23486
Veg. Sage brush - pinon mixed Juniper and Oak
rose in ravines also Berberis fremontii
Arr. Nixon Spg. 4 P.M.

Aug. 4 (Wed.)
Remained at Mission Springs.
Visited troops 4 miles away (2 times)
Mileage 23538
Left 8 A.M.
Ret. 6 P.M.

Aug. 5 Thurs
Mileage 23554
Left Wilson Ranch 3:15 P.M.
arrived camp 6:30 P.M.

Aug. 6 Fri.
Mileage 23611
Left camp 20 min. S. of
"Wolf Hole" 9 A.M.
Arrived Ft. Bayard 6 P.M.

Aug. 7
Mileage 23717 -
At Ft. Bayard remained
Sent to troops early

Fred Pelzer
KDKA Pittsburgh